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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/564,789	01/13/2006	Tomoyuki Horiguchi	TIP-05-1845	3315
35811 7590 12/28/2009 IP GROUP OF DLA PIPER LLP (US) ONE LIBERTY PLACE 1650 MARKET ST, SUITE 4900 PHILADELPHIA, PA 19103				
EXAMINER GUGLIOTTA, NICOLE T				
ART UNIT		PAPER NUMBER		
1794				
NOTIFICATION DATE		DELIVERY MODE		
12/28/2009		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

pto.phil@dlapiper.com

### Office Action Summary

**Application No.**

10/564,789

**Applicant(s)**

HORIGUCHI ET AL.

**Examiner**

NICOLE T. GUGLIOTTA

**Art Unit**

1794

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 October 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 29 - 30, 32 - 40 & 42 - 48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 29 - 30, 32 - 40 & 42 - 48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-06)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 8, 2009 has been entered.

### ***Examiner's Note***

Examiner acknowledges the amendment to claims 29 and 40. Claims 1- 28, 31 & 41 are cancelled. Claims 29 – 30, 32 – 40 & 42 – 48 are currently pending.

### ***Claim Objections***

**1. Claim 42 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.** Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. If a non-woven fabric does not contain an elastomer (elastic polymer) (claim 40), then its fibers are made of a non-elastic polymer (claim 42).

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

**2. Claims 29 – 30, 32 – 40 & 42 – 48 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.** The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Considering claims 29 & 40, Applicant's amendment states "substantially free of bundles of ultra-fine fibers". Applicant has stated in their remarks their support for this amendment is the following:

"...the entanglement **between** the bundles of ultra-fine fibers is little observed" (specification, Pg 22, Lines 15 & 16).

However, Examiner does not believe this supports the amendment of a non-woven fabric "substantially free of bundles of free ultra-fine bundles". The specification (pg 22) states:

"However, in this invention as described above, in the obtained nonwoven fabric containing ultra-fine fibers, the ultra-fine fibers are entangled with each other to such an extent that the entanglement between the bundles of ultra-fine fibers is little observed."

Examiner interprets this citation to mean that the entangling of between bundles is small compared to the amount of entanglement between single fibers. Applicant clearly supports in their specification the presence of bundles, and the presence of bundles entangled with each other (specification, ¶ [0021] & [0046]). Therefore,

Applicant's limitation of "substantially free of bundles of ultra-fine fibers" is not supported by the specification.

Claims 30, 32 – 39, 42 – 48 are dependent upon either claim 29 or 40 and are therefore also rejected.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**3. Claim 36 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.** Applicant claims needle-punching before forming of the ultra-fine fiber. The purpose of needle-punching is to entangle fibers together that are already made. Therefore, it is unclear how it is possible to needle-punch fibers that have not yet been made. Clarification from the Applicant is requested.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**4. Claims 29, 32, 39, 40 & 44 - 46 are rejected under 35 U.S.C. 102(b) as being anticipated by Tadokoro et al. (U.S. Patent No. 5,888,916).**

In regard to claims 29, 39, 40, Tadokoro et al. disclose a non-woven fabric comprising staple fibers (Col. 3, Lines 49 - 60) with a fiber fineness of 0.05 denier (0.056 decitex) and 0.8 denier (0.89 decitex) (Col. 9, Lines 37 - 29) or 0.5 denier (0.56 decitex) (Col. 19, Line 32), and a fiber length of 7.5 mm (0.75 cm) (Example 1; Col. 19, Line 32). The fabric has an apparent density of 0.276 to 0.7 g/cm<sup>3</sup> (Abstract & Col. 11, Lines 44 - 59) and a basis weight (weight per unit area) of 10 to 350 g/m<sup>2</sup> (Col. 8, Lines 15 - 19). Considering the tensile strength, tear strength and modulus in the length direction,

MPEP 2112 [R-3] states:

The express, implicit, and inherent disclosures of a prior art reference may be relied upon in the rejection of claims under 35 U.S.C. 102 or 103. "The inherent teaching of a prior art reference, a question of fact, arises both in the context of anticipation and obviousness." *In re Napier*, 55 F.3d 610, 613, 34 USPQ2d 1782, 1784 (Fed. Cir. 1995) (affirmed a 35 U.S.C. 103 rejection based in part on inherent disclosure in one of the references). See also *In re Grasselli*, 713 F.2d 731, 739, 218 USPQ 769, 775 (Fed. Cir. 1983).

The examiner takes the position a non-woven fabric, such as disclosed by Tadokoro et al., of the same composition as claimed by Applicant would have the tear strength and modulus in the length of direction.

Tadokoro et al. are silent in regard to the presence of elastomers or bundles. Therefore, it would be reasonable to believe the non-woven fabric disclosed by Tadokoro et al. does not contain elastomers and is substantially free of bundles of ultra-fine fibers.

Considering claims 40 & 39, Tadokoro et al. disclose the non-woven fabric is used as battery separator and are silent in regard to artificial leather. However, the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, than it meets the claim. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). Applicant has failed to note the distinctive structural property that distinguishes their invention as artificial leather.

In regard to claims 32 & 45, Tadokoro et al. discloses the fibers are composed of polyester (Example 8; Col. 26, Lines 30 - 31).

In regard to claim 44, as noted above in MPEP 2112 [R-3], it would be reasonable to believe a non-woven fabric of the similar claimed composition would possess the same properties. Therefore, it would be reasonable to believe the non-woven fabric disclosed by Tadokoro et al. would have an abrasion loss of 20 mg or less after 20,000 times and the number of pills of 5 or less.

In regard to claim 46, as discussed above for claim 29, the fibers have a length of 0.75 cm (Example 1).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**5. Claims 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tadokoro et al. (U.S. Patent No. 5,888,916).**

In regard to claim 30, as discussed above Tadokoro et al. disclose 0.75 cm for a fiber length (Example 1). "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation", *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 245 (CCPA 1955); see also *Peterson*, 315F.3d at 1330, 65 USPQ2d at 1382. See MPEP 2144.05. The fiber lengths of 0.75 cm and 1 cm are reasonable close in value. The optimum ranges for fiber length can be determined through routine experimentation.

**6. Claims 47 – 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tadokoro et al. (U.S. Patent No. 5,888,916), as applied to claim 40 above, in view of Katayama et al. (U.S. Patent No. 6,537,660 B2).**

In regard to claims 47 – 48, Tadokoro et al. are silent in regard to the presence of small particles in their manufactured non-woven fabric. However, Katayama et al. disclose an ultra-fine non-woven web (Col. 8, Lines 31) comprising polyester or polyamide fibers (Col. 6, Lines 9 – 38), and particles of 0.1 - 5  $\mu\text{m}$  for use as stabilizers, lubricants, absorbers, antioxidants, antistatic agents, flame retardants, plasticizers, colorants, and crystallization governors (Col. 6, Lines 44 - 60). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include small particles, such as stabilizers, lubricants, and antistatic agents to the non-woven



fabric comprising polyester fibers in order to maintain the strength and light-weight properties of the non-woven fabric (Col. 1, Lines 62 – 64), as taught by Katayama et al.

### ***Response to Arguments***

7. Applicant's arguments with respect to claims 29 – 30, 32 – 40 & 42 – 48 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NICOLE T. GUGLIOTTA whose telephone number is (571)270-1552. The examiner can normally be reached on M - F 8:30 a.m. - 6 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R. Sample can be reached on 571-272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David R. Sample/  
Supervisory Patent Examiner, Art Unit 1794

/NICOLE T GUGLIOTTA/  
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